

APPROVED	O.G. FIG.
BY	CLASS
DRAFTSMAN	SUBCLASS

ATGACCCGCTATGAGCACTGCAATTACACGCCAGATCGTTCTCGATAACCGAAACCCGGTATGAACCAAGATTGGT 75

M T A M S T A I T R Q I V L D T E T T G M N Q I G
mutD

GCGCACTATGAAGGCCACAAGATCATTGAGATTGGCTGGCTGGTGAAGTGGTACATGGTATTGGCAATAAAC 150
mutD

A H Y E G H K I I E I G A V E V V N R R L T G N N
TTCCATGTTTATCTCAAACCCGATCGGCTGGTGGATCCGGAAAGCCTTTGGCTACATGGTATTGGCAATAAAC 225
mutD

F H V Y L K P D R L V D P E A F G V H G I A D E F
TTGCTCGATAAGCCCCACGTTGCCGAAGTAGCCGATGAGTTCATGGACTATAATTGGGGGGGAGTTGGTGC 300
mutD

L L D K P T F A E V A D E F M D Y I R G A E L V I
CATAAACGGCAGCGTTCGATAATGGCTTTATGGACTACGAGTTTCGTTGCTTAAGCGCGATAATTCCGAAGACCAAT 375
mutD

H N A A F D I G F M D Y E F S L L K R D I P K T N

FIG._ 1A

APPROVED	O.G. FIG.
BY	CLASS
DRAFTSMAN	SUBCLASS

ACTTTCTGTAAGGTACCGATAAGCCTTGCGGTGGCGAGGAAAATGTTTCCGGTAAGCGAACAGCCTCGATGCG 450

T F C K V T D S L A V A R K M F P G K R N S L D A
mutD

TTATGTGCTCGCTACGAAATAGATAACAGTAAACGAAACGCTGCACGGGGCATTACTCGATGCCAGATCCTTGCG 525

L C A R Y E I D N S K R T L H G A L L D A O I L A
mutD

GAAGTTTATCTGGCGATGACCGGGTGGTCAAACGTCGATGGCTTTGCATGGAGGAGAGACACAACAGCAACAA 600

E V Y L A M T G G O T S M A F A M E G E T A O Q Q Q
mutD

GGTGAAGCAACAATTCAAGCGCATTTGTAACGTCAAGGCAAGTAAGTTACGGGTTGGCTGGAGAGATTGAAGAGATT 675

G E A T I Q R I V R Q A S K L R V V F A T D E E I
mutD

GCAGCTCATGAAGCCCCGTCTCGATCTGGTGCAGAAGAAAGGCCGAAGTTGGCTCTGGCGAGGATAA 741

A A H E A R L D L V Q K K G G S C L W R A .
mutD

FIG.- 1B

3 / 10

APPROVED	O.G. FIG.
BY	CLASS
DRAFTSMAN	SUBCLASS

10 ATGAGCTATCGTATGTTGATTATCTGGTTCCAAATGTTGAACTTCTTGGGGGGCC Eb_429T.dna
10 ATGAGCTATCGTATGTTGATTATCTGGTTCCAAATGTTGAACTTCTTGGGGGGCC Eb_GEBT.dna

70 GTTTCTGTGTTGCCAGGGCTGGCTGGGGGGTAAAGCCCTGGCTGGTGAC Eb_429T.dna
70 GTTTCTGTGTTGCCAGGGCTGGCTGGGGGGTAAAGCCCTGGCTGGTGAC Eb_GEBT.dna

130 GATAAGGGCCTGGCCATTAAAGACCCATTAAAGGGCCTGGCTGGGGGTAAAGCCGTGACCTGAA Eb_429T.dna
130 GATAAGGGCCTGGCCATTAAAGACCCATTAAAGGGCCTGGCTGGGGGTAAAGCCGTGACCTGAA Eb_GEBT.dna

190 GCGCGGGTATTGAGGTGGTCATTTCGACGGGCTCGAACCGGAACCTGAAAC Eb_429T.dna
190 GCGCGGGTATTGAGGTGGTCATTTCGACGGGCTCGAACCGGAACCTGAAAC Eb_GEBT.dna

250 GTGCTCGACGGGCTGGCCATTGGTAAAGAGCAGTGGGACATGATAATCACCGTCGGC Eb_429T.dna
250 GTGCTCGACGGGCTGGCCATTGGTAAAGAGCAGTGGGACATGATAATCACCGTCGGC Eb_GEBT.dna

FIG._2A

Y OF PAPERS
GINALLY FILED

APPROVED	O.G. FIG.	CLASS	SUBCLASS
BY			
DRAFTSMAN			

310	320	330	340	350	360
310	GGCGCGAGCCCCGCGA	CGAC	TGCCGGTAAAGGCAT	TGGTATTGGC	GGGGTGA
310	GGCGCGAGCCCCGCTCGA	CTCGA	TGCCGGTAAAGGCAT	TGGTATTGGC	GGGTGA
370	380	390	400	410	420
370	CTGTACAGCTATGCCGGT	ATCGAA	ACACTCACCAACCCGCT	GGCCCATTTG	CCCCGT
370	CTGTACAGCTATGCCGGT	ATCGAA	ACACTCACCAACCCGCT	GGCCCATTTG	CCCCGT
430	440	450	460	470	480
430	AACACACCCCCGGGACCC	GGCCAGCGAAGTCAC	CCGGCACTGCGT	GACTTACAC	CCAA
430	AACACACCCCCGGGACCC	GGCCAGCGAAGTCAC	CCGGCACTGCGT	GACTTACAC	CCAA
490	500	510	520	530	540
490	ACCAAAAGTAAATTGTGAT	TTGTGATTCAGCT	GGCTTCCGCT	CCATTAA	ACGAT
490	ACCAAAAGTAAATTGTGAT	TTGTGATTCAGCT	GGCTTCCGCT	CCATTAA	ACGAT
550	560	570	580	590	600
550	CCGCTGCTGATGATCGG	CCAGCCCCGGGGCT	GACCGCCGGCT	TGGATGCCCTG	GG
550	CCGCTGCTGATGATCGG	CCAGCCCCGGGGCT	GACCGCCGGCT	TGGATGCCCTG	GG

FIG. 2B

5 / 10

APPROVED	O.G. FIG.
BY	CLASS
DRAFTSMAN	SUBCLASS

610 ACCCACGGCCGCTAGAGCCCTATACTCCAAAGACGGCAACCGGTTACCGATGCCCTCTGCT Eb_429T.dna
610 ACCCACGGCCGCTAGAGCCCTATACTCCAAAGACGGCAACCGGTTACCGATGCCCTCTGCT Eb_GEBT.dna

610 620 630 640_p 650 660
670 680 690 700 710 720
670 ATTCAAGGCCATCAAACCTGATGCCAACCTGCCCCAGGGCCGCTCGGCCCTGGGACCAAC Eb_429T.dna
670 ATTCAAGGCCATCAAACCTGATGCCAACCTGCCCCAGGGCCGCTCGGCCCTGGGACCAAC Eb_GEBT.dna
730 740 750 760 770 780
730 CTCAAAGCCCCGTGAAACATGGCCCTCTCTGCTGGGATGGCCCTTTAACAAAC Eb_429T.dna
730 CTCAAAGCCCCGTGAAACATGGCCCTCTCTGCTGGGATGGCCCTTTAACAAAC Eb_GEBT.dna
790 800 810 820 830 840
790 GCCAACCTGGCTATGTTCACGCCATGGCTCACAGCTGGGCTGACATGGCC Eb_429T.dna
790 GCCAACCTGGCTATGTTCACGCCATGGCTCACAGCTGGGCTGACATGGCC Eb_GEBT.dna
850 860 870 880 890 900
850 CACGGGGCTGGCGAACGGGGTCCATGTCCTGCCCTAACCTGATGCCAAC Eb_429T.dna
850 CACGGGGCTGGCGAACGGGGTCCATGTCCTGCCCTAACCTGATGCCAAC Eb_GEBT.dna

FIG._2C

APPROVED	O.G. FIG.
BY	CLASS
DRAFTSMAN	SUBCLASS

6 / 10

910	920	930	940	950	960
910	CCG GAAAATTGCCGATATGCCAACCTTATGGGGAAACACCAACCCGTCCTTCCACC				Eb_429T.dna
910	CCG GAAAATTGCCGATATGCCAACCTTATGGGGAAACACCAACCCGTCCTTCCACC				Eb_GEBT.dna
970	980	990	1000	1010	1020
970	ATG GACGCCAGGGAGCTGGCCATCAGCGCCATTGGCCCTGCTGTCTAAAGATGTCGGGATC				Eb_429T.dna
970	ATG GACGCCAGGGAGCTGGCCATCAGCGCCATTGGCCCTGCTGTCTAAAGATGTCGGGATC				Eb_GEBT.dna
1030	1040	1050	1060	1070	1080
1030	CCG CAGCACCTGCGTGAACCTGGGGTAAAGAGGGCCGACTTCCCGTACATGGCAGAAATG				Eb_429T.dna
1030	CCG CAGCACCTGCGTGAACCTGGGGTAAAGAGGGCCGACTTCCCGTACATGGCAGAAATG				Eb_GEBT.dna
1090	1100	1110	1120	1130	1140
1090	GCCCCCTGAAAGACGGCAACGGCTTACCCGGCAAGGGAAACGAAAGAGGATTGCC				Eb_429T.dna
1090	GCCCCCTGAAAGACGGCAACGGCTTACCCGGCAAGGGAAACGAAAGAGGATTGCC				Eb_GEBT.dna
1150	1160	1170			
1150	GACATTTCGGCAGGCCATTCTGA				Eb_429T.dna
1150	GACATTTCGGCAGGCCATTCTGA				Eb_GEBT.dna

Decoration 'Decoration #1': Shade (with solid black) residues that differ from the Consensus.

FIG.-2D

7 / 10

APPROVED	O.G. FIG.
BY	CLASS
DRAFTSMAN	SUBCLASS

10 M S Y R M F D Y L V P N V N F P G P G A V S V V G Q R C Q L L G G K K A L L V T Eb_429T.dna
10 M S Y R M F D Y L V P N V N F P G P G A V S V V G Q R C Q L L G G K K A L L V T Eb_GEBT.dna

130 D K G L R A I K D G A V D Q T V K H L K A A G I E V V V I F D G V E P N P K D T N Eb_429T.dna
130 D K G L R A I K D G A V D Q T V K H L K A A G I E V V V I F D G V E P N P K D T N Eb_GEBT.dna

250 V L D G L A M F R K E Q C D M I I T V G G G S P **H** D C G K G I G I A A T H P G D Eb_429T.dna
250 V L D G L A M F R K E Q C D M I I T V G G G S P I D C G K G I G I A A T H P G D Eb_GEBT.dna

370 L Y S Y A G I E T L T N P L P P I I A V N T I A G T A S E V T R H C V L T N T K Eb_429T.dna
370 L Y S Y A G I E T L T N P L P P I I A V N T I A G T A S E V T R H C V L T N T K Eb_GEBT.dna

490 T K V K F V I V S W R N L P S V S I N D P L L W I G K P A G L T A A T G M D A L Eb_429T.dna
490 T K V K F V I V S W R N L P S V S I N D P L L W I G K P A G L T A A T G M D A L Eb_GEBT.dna

FIG._3A

8 / 10

APPROVED	O.G. FIG.
BY	CLASS
DRAFTSMAN	SUBCLASS

610	640	670	700	
610	T H A V E A Y I S K D A N P V T D A S A I Q A I K L I A T N L R Q A V A L G T N			Eb_429T.dna
610	T H A V E A Y I S K D A N P V T D A S A I Q A I K L I A T N L R Q A V A L G T N			Eb_GEBT.dna
730	760	790	820	
730	L K A R E N N M A C A S L L A G M A F N N A N L G Y V H A M A H Q L G G L Y D M A			Eb_429T.dna
730	L K A R E N N M A C A S L L A G M A F N N A N L G Y V H A M A H Q L G G L Y D M A			Eb_GEBT.dna
850	880	910	940	
850	H G V A N A V L L P H V C R Y N L I A N P E K F A D I A T P M G E N T T G L S T			Eb_429T.dna
850	H G V A N A V L L P H V C R Y N L I A N P E K F A D I A T P M G B N T T G L S T			Eb_GEBT.dna
970	1000	1030	1060	
970	M D A A E L A I S A I A R L S K D V G I P Q H L R E L G V K E A D P P Y M A E M			Eb_429T.dna
970	M D A A E L A I S A I A R L S K D V G I P Q H L R E L G V K E A D P P Y M A E M			Eb_GEBT.dna
1090	1120	1150		
1090	A L K D G N A F S N P R K G N E K E I A D I P R Q A P			Eb_429T.dna
1090	A L K D G N A F S N P R K G N E K E I A D I P R Q A P			Eb_GEBT.dna

Decoration 'Decoration #1': Shade (with solid black) residues that differ from the Consensus.

FIG._3B

9 / 10

APPROVED	O.G. FIG.
BY	CLASS
DRAFTSMAN	SUBCLASS

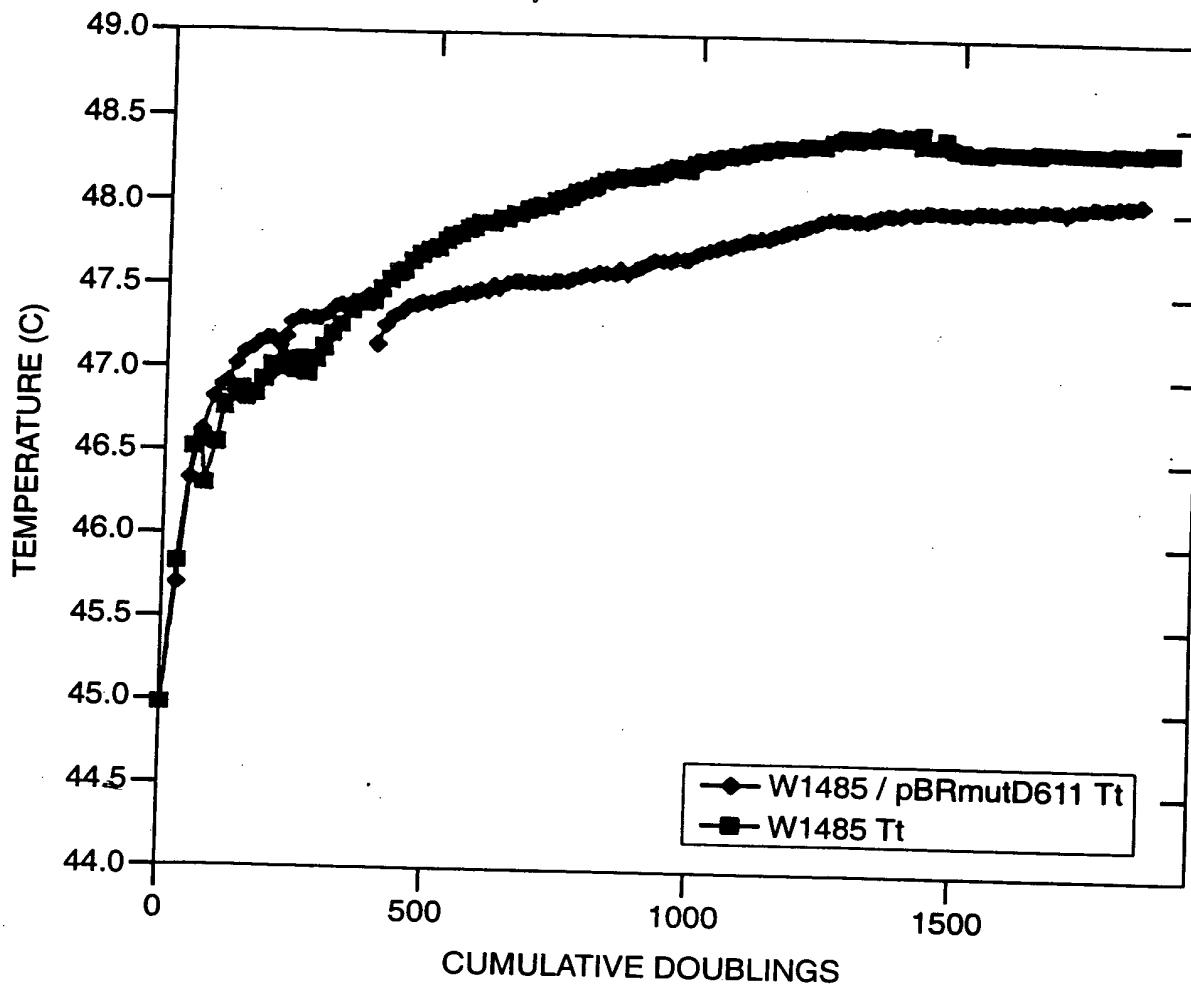


FIG._4

10 / 10

APPROVED	O.G. FIG.	CLASS	SUBCLASS
BY	DRAFTSMAN		

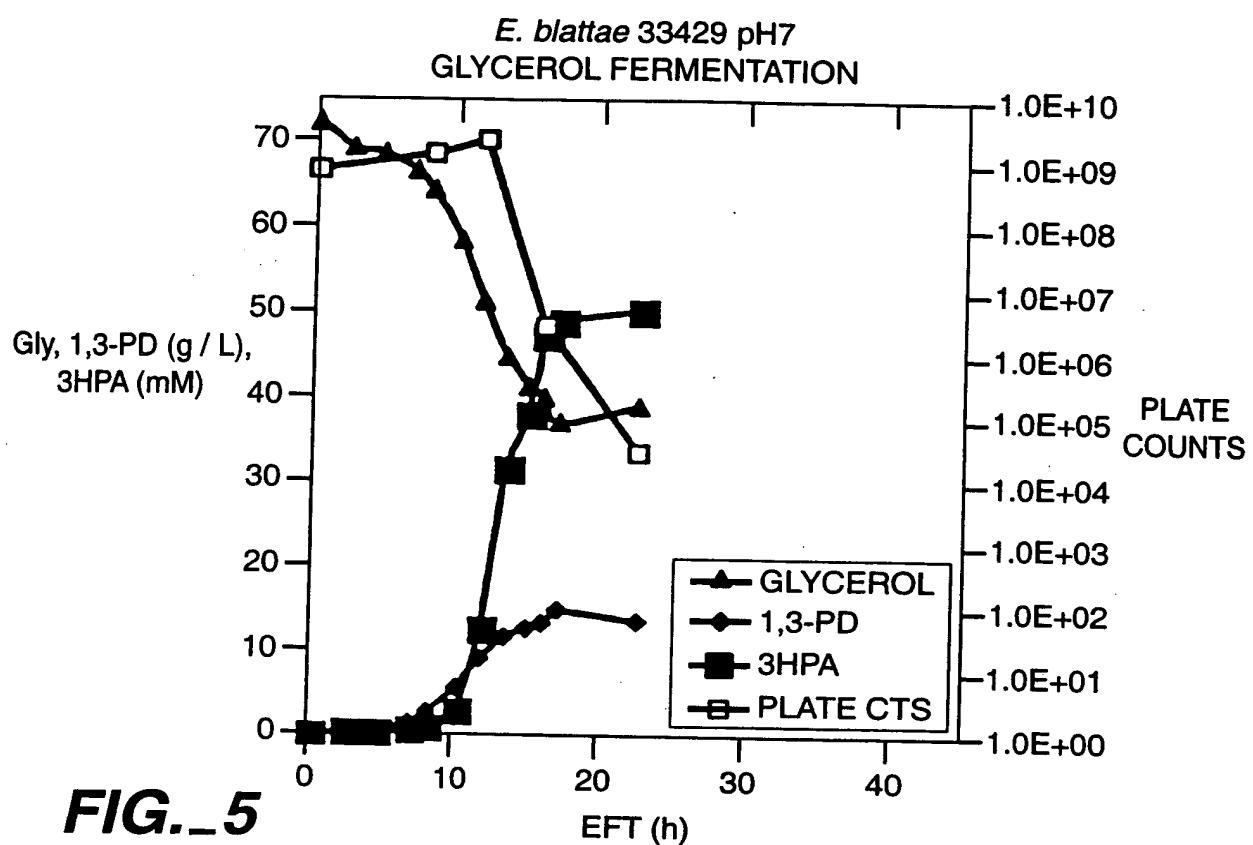


FIG._5

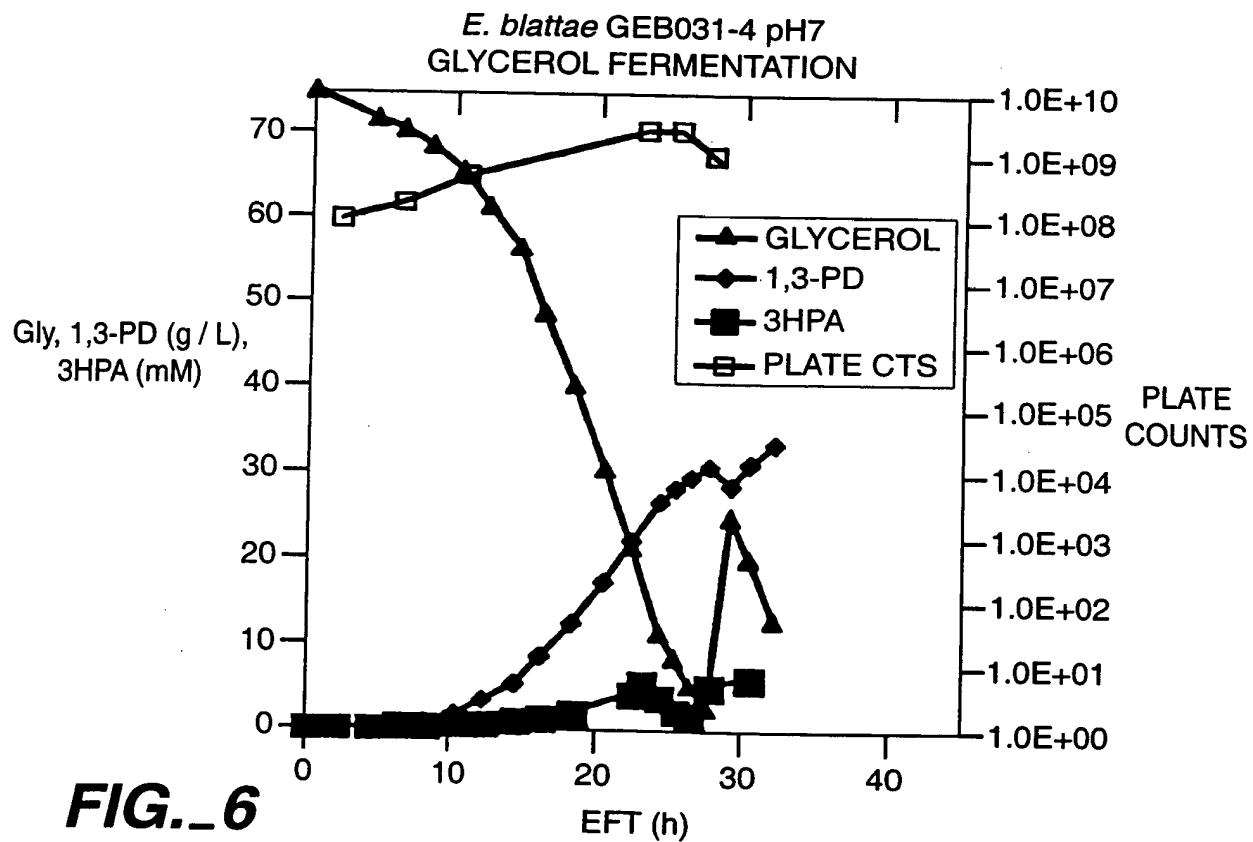


FIG._6